

6.1 Initial Value Problems & Slopefields

differential equation with initial conditions

$$\frac{dy}{dx} = \cos x$$

solve the d.e. (find y)

$$y = \sin x + C$$

general solution

$$2 = \sin 0 + C$$

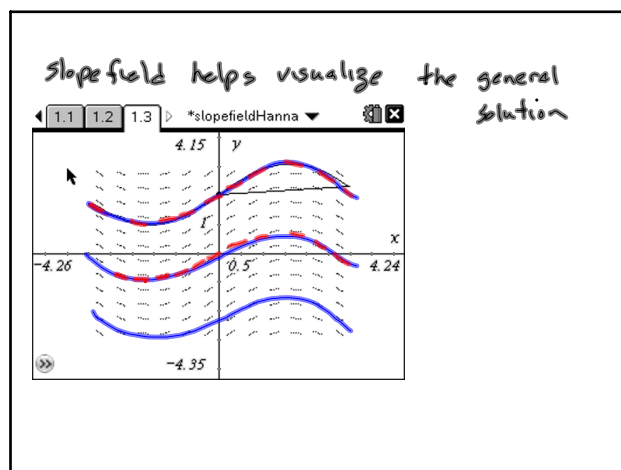
$$2 = C$$

$$y = \sin x + 2$$

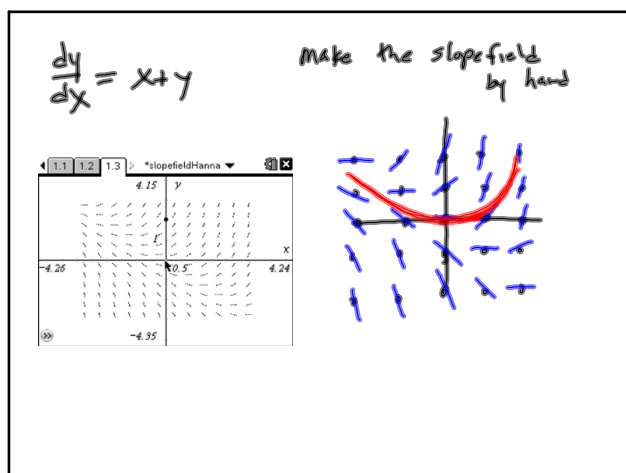
specific solution

$f(0) = 2$
when $x = 0$, $y = 2$
use to find C

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